

CREDIT OPINION

16 March 2018

Rate this Research



Analyst Contacts

Nisha Rajan +1.212.553.1978
Associate Lead Analyst
nisha.rajan@moodys.com

Edward (Ted) Damutz +1.212.553.6990
VP-Sr Credit Officer
edward.damutz@moodys.com

Leonard Jones +1.212.553.3806
MD-Public Finance
leonard.jones@moodys.com

CLIENT SERVICES

Americas 1-212-553-1653

Asia Pacific 852-3551-3077

Japan 81-3-5408-4100

EMEA 44-20-7772-5454

Howard (County of) MD

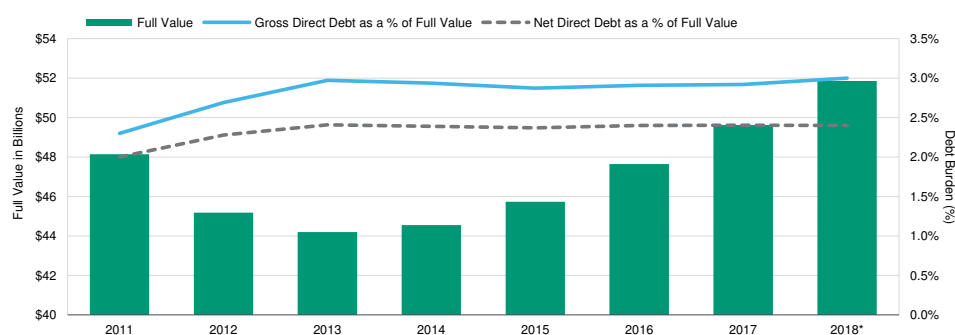
Update to credit analysis

Summary

[Howard County](#) (Aaa stable) benefits from its proximity to the Baltimore-Washington metro area and Fort Meade, and is experiencing moderate economic growth following declines during the housing downturn. As a result of increasing development, the county's revenue base is growing, which will support its adequate financial position. The county historically maintained reserve levels below the Aaa-median, however, due to prudent management practices its fiscal health is likely to remain stable. As business activity and population increase, additional infrastructure investment, particularly for the schools, general county, and water and wastewater utility is becoming increasingly important. Consequently, because of management's plans to address capital needs with additional debt, Howard County's debt burden will increase.

Exhibit 1

Historically Manageable Debt Burden Fiscal 2011-2018



*2018 debt figures include the 2018 GO issuance. Full value projects a 4.5% increase from fiscal 2017.

Source: Howard County, MD & Moody's Investors Service

Credit strengths

- » Large tax base with strong institutional presence and proximity to the Baltimore Washington metro area
- » Above average wealth and income levels
- » Management team practices conservative budgeting and maintains formal fiscal policies

Credit challenges

- » Reserve levels markedly below the Aaa median

- » Reliance on economically sensitive revenues
- » Growing debt burden
- » Employment closely linked to US government

Rating outlook

The stable outlook reflects the likelihood that the county's financial position will remain sound given management's adherence to formal fiscal policies. Any deviation from these projections or any additional declines in reserves going forward could result in negative credit pressure. The outlook also reflects future growth in the county's base given ongoing commercial and residential development spurred by proximity to the [District of Columbia](#) (Aa1 stable) and the institutional presence of Fort Meade, which employs approximately 15,000 Howard County residents.

Factors that could lead to an upgrade

- » Not applicable

Factors that could lead to a downgrade

- » Declines in general fund reserves and liquidity
- » Tax base erosion
- » Material increase in debt burden resulting in strained financial position
- » Downgrade of the U.S government's Aaa rating

Key indicators

Exhibit 2

Howard (County of) MD	2013	2014	2015	2016	2017
Economy/Tax Base					
Total Full Value (\$000)	\$44,201,087	\$44,552,141	\$45,731,164	\$47,641,613	\$49,626,809
Population	293,821	299,269	304,115	308,447	317,233
Full Value Per Capita	\$150,435	\$148,870	\$150,375	\$154,456	\$156,436
Median Family Income (% of USMedian)	198.8%	197.8%	194.7%	194.0%	194.0%
Finances					
Operating Revenue (\$000)	\$896,701	\$926,845	\$958,738	\$1,052,250	\$1,053,462
Fund Balance (\$000)	\$133,660	\$126,274	\$99,548	\$131,497	\$127,649
Cash Balance (\$000)	\$123,288	\$116,650	\$73,825	\$118,281	\$116,288
Fund Balance as a % of Revenues	14.9%	13.6%	10.4%	12.5%	12.1%
Cash Balance as a % of Revenues	13.7%	12.6%	7.7%	11.2%	11.0%
Debt/Pensions					
Net Direct Debt (\$000)	\$1,064,397	\$1,064,000	\$1,083,433	\$1,142,887	\$1,192,690
3-Year Average of Moody's ANPL (\$000)	\$594,221	\$731,654	\$755,659	\$680,139	\$687,858
Net Direct Debt / Operating Revenues (x)	1.2x	1.1x	1.1x	1.1x	1.1x
Net Direct Debt / Full Value (%)	2.4%	2.4%	2.4%	2.4%	2.4%
Moody's - adjusted Net Pension Liability (3-yr average) to Revenues (x)	0.7x	0.8x	0.8x	0.6x	0.7x
Moody's - adjusted Net Pension Liability (3-yr average) to Full Value (%)	1.3%	1.6%	1.7%	1.4%	1.4%

Source: Howard County, MD & Moody's Investors Service

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

Profile

Howard County is located between the [City of Baltimore](#) (Aa2 stable) and the District of Columbia and has a population of approximately 317,000.

Detailed credit considerations

Economy and tax base: strategically located tax base with moderate growth; stability from significant institutional and military presence

Howard County's tax base will experience moderate growth because of economic expansion and diversification related to the presence of Fort Meade, as well as its favorable proximity to the Baltimore-Washington metropolitan area. Although the rate of growth slowed during the recession, the county's full value increased by 4.2% in fiscal 2017 to reach \$49.6 billion, and the five year average annual growth rate is 1.9%. The statewide requirement to phase in reassessment-related tax base growth over a three-year period helps to balance growth in the county. Additionally, the homestead tax credit, which limits the county's ability to capture homestead appreciation for annual tax levy purposes to 5%, allows pent up growth to smooth tax base levels during periods of declines or stagnation. The county's full value is comparable to the national Aaa-median of \$50.2 billion. Future growth will be driven by continued residential, commercial, and industrial developments throughout the county.

Fort Meade, the state's largest employer and second largest army installation within the US, is located less than two miles from the county line in adjacent Anne Arundel County (Aa1 stable). The fort currently employs approximately 56,000 employees (15,000 within the county), and tenant organizations include U.S. Cyber Command and the National Security Agency (NSA). Due to this proximity, Howard County benefits from capital investment and economic growth. Current expansion activity at the fort, primarily roadway and barracks projects, total \$344 million (about 42% funded) and will likely add 2,991 jobs between fiscal 2018 and 2024. The East (Cyber) Campus at Fort Meade is also planning a \$1.8 billion expansion, and funding sources are currently being determined. The county also provides five million gallons per day of reclaimed water to cool the supercomputers on Fort Meade's campus, which began in fiscal 2016.

Construction activity remains strong, with ongoing mixed use developments at Oxford Square and Maple Lawn, both of which are adding retail, office and residential space, as well as a 416 unit apartment complex near the Savage Commuter Rail Station, and a 160 unit apartment complex at Little Patuxent. The Maryland Department of Assessments and Taxation reports an increase in commercial property tax growth of approximately 5% in fiscal 2017 to just over \$8.4 billion in Howard County.

The county's low unemployment rate of 2.8% in December 2017, below both the state (3.8%) and national (3.9%) levels, reflects a strong and stable underlying local economy. Resident wealth levels are strong, with 2016 median family income of \$131,695 (194% of US and 143.1% of MD) representing the highest in the state. Full value per capita at \$156,436 is also above average and surpasses the national Aaa-median of \$107,389.

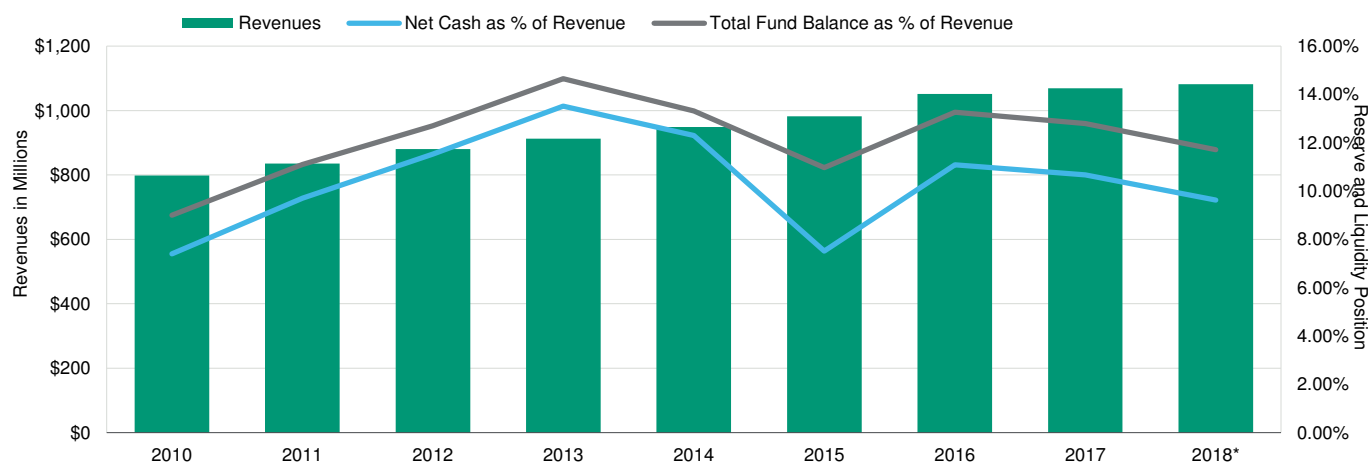
Financial operations and reserves: sound albeit below average reserve levels to remain stable given sound management practices and policies

The county's financial position will remain sound, but narrow relative to other similarly-rated counties due to prudent and active management practices. Overall, the county experienced an increase in total general fund reserves to \$136.7 million (12.8% of General Fund revenues) in fiscal 2017 from a low of \$71.8 million (9% of General Fund revenues) in fiscal 2010. This improvement is attributable to conservative budgeting both on the revenue (primarily related to positive income and property tax performance) and expenditure side.

Exhibit 3

The County's Financial Position Has Improved and Will Stabilize Near Current Levels

Fiscal 2010-2018



*2018 figures are preliminary

Source: Howard County, MD & Moody's Investors Service

The county ended fiscal 2017 with a \$2.7 million general fund operating deficit, the result of planned onetime pay-go capital expenditures. Revenues and expenditures both surpassed budgetary expectations by approximately \$24 million and \$4.7 million, respectively, resulting in use of \$1.4 million in fund balance (versus budgeted use of \$20.6 million in fund balance). The county's largest revenue source is property taxes (49.2% of fiscal 2017 revenues), followed by income taxes (41.3%). The county maintains a stabilization "rainy day fund" in the general fund equal to \$67.4 million, or 6.3% of general fund revenues in fiscal 2017. The county has never utilized funds from this reserve, and use would require City Council approval.

The adopted fiscal 2018 budget maintains the property tax rate at 1.014 cents per \$100 of assessed valuation and the local income tax rate of 3.2%, the maximum level permitted under state law. The estimated budget represents a 1.2% increase relative to the prior year, and includes a \$9.9 million allocation in fund balance to balance the budget, although the county expects to replenish most of those reserves. Year-to-date results project a \$7 million revenue short fall due to a decrease in income tax revenues, which county management anticipates will be offset by stronger performance in other revenue sources and expenditure cost saving options across county agencies. The capital budget reflects \$378 million for projects in fiscal 2018.

The county's projections through 2024 include structurally balanced budgets averaging 3.5% annual growth. Projections include an average of \$33 million in pay-go capital projects annually, providing significant flexibility. Holding tax rates level, these projections include between 3.0-3.3% average annual increases in property tax and 4.0% average annual increases in income tax revenues.

While the property tax growth may seem more aggressive than historical figures, we believe the rebound in development will help to support this estimate. Going forward, we will monitor the county's ability to meet projections and build reserves to levels more in line with the current rating category (median for Aaa Maryland counties: 15.9% of General Fund revenues; median for Aaa national counties: 35.2% of General Fund revenues). Additional declines in reserves will likely result in negative credit pressure.

LIQUIDITY

The county's general fund cash position decreased in fiscal 2017 to \$114.1 million (10.7% of revenues) from \$116.5 million (11.1% of revenues) in fiscal 2016. The county's cash levels fall below the median of Aaa-rated counties (33.7% of revenues) nationally.

Debt and pensions: above-average debt burden, supported by independent utility funds, expected to increase given substantial capital improvement plans; low pension liability

While the county's debt burden is moderate, it will increase given additional plans for bond issues totaling \$1.3 billion between fiscal 2018 and 2023 to support capital projects. The county monitors bond authorization with a "Spending Affordability Advisory Committee," and while the current capital budget anticipates \$1.3 billion in bond issuance, the committee recommends limiting annual issues to \$100 million, and internal county projections reflect additional bond issues closer to \$750 million over the next five

years. The planned level of issuance will coincide with amortization of outstanding debt, affording the county some operating flexibility. Additionally, further growth in the tax base will mitigate the effects of additional debt, as will moderate capital spending from pay-go funding totaling approximately \$75 million between fiscal 2018 and 2023, and the independence of the utility funds to support their portion of debt service.

Post-issuance, the direct debt burden will be \$1.2 billion, or 2.5% of 2017 full value, net of \$310 million of self-supported enterprise debt. Because the county also issues debt for its schools, its direct debt burden is elevated compared to peers. The median debt burden for similarly rated counties is approximately 0.7% of full value nationally, and 1.9% of full value in MD.

Debt service is paid through a combination of ad valorem taxes, user and connection fees, and special assessments. Debt service costs accounted for 10.2% of total fiscal 2017 operating expenditures.

The county maintains a \$5.6 billion six-year Capital Improvement Plan (2018-2023), with 35% allocated for education, 23% for the general county, and 16% water and sewer projects. The plan is financed through a variety of bonds, grants, state aid, and pay-go funding.

DEBT STRUCTURE

All of the county's debt is fixed rate. Amortization is average, with 60.1% of principal retired within 10 years.

DEBT-RELATED DERIVATIVES

The county is not party to any derivative agreements.

PENSIONS AND OPEB

The county maintains two single-employer defined benefit plans, for general government employees and for police and fire officers. The county contributed a total of \$38.9 million (3.7% of operating expenditures) to the plans in fiscal 2017. Both contributions represented 100% of the annual pension cost.

The county's combined adjusted net pension liability, under Moody's methodology for adjusting reported pension data, is \$874.5 million in fiscal 2017, or a below-average 0.83 times operating revenues. Moody's uses the adjusted net pension liability to improve comparability of reported pension liabilities. The adjustments are not intended to replace the county's reported liability information, but to improve comparability with other rated entities. We determined the county's share of liability for the state-run plan in proportion to its contributions to the plans.

The county also provides other post-employment benefits (OPEB) to employees. In fiscal 2017, the county paid \$36.3 million towards the pay-go portion of these benefits and \$13 million to a trust to reduce the unfunded liability. The county anticipates a contribution of \$16 million in fiscal 2018 to reduce the unfunded liability. The county maintains an eight-year plan to increase its annual contribution to meet the actuarially determined required contribution. Total fixed costs (pensions, OPEB and debt service) were a manageable 17% of fiscal 2017 expenditures.

Management and governance

Maryland Counties have an Institutional Framework score of Aa, which is high compared to the nation. Institutional Framework scores measure a sector's legal ability to increase revenues and decrease expenditures.

While the sector's largest revenue source, property taxes, is not subject to any statewide caps, income taxes account for approximately a third of revenues and are capped at 3.2%. Unpredictable revenue fluctuations tend to be minor, or under 5% annually. Across the sector, fixed and mandated costs are generally greater than 25% of expenditures. Maryland has public sector unions, which can limit the ability to cut expenditures. Unpredictable expenditure fluctuations tend to be minor, under 5% annually.

By county charter, the general fund is required to maintain a budget stabilization reserve (committed fund balance) equal to a minimum 7% of audited prior year General Fund expenditures, a threshold the county has met in each of the last five fiscal years. Management also designates additional funds within the general fund balance for the two subsequent year's contribution to the budget stabilization reserve. The county is expected to meet its budget stabilization reserve policy going forward.

© 2018 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL, FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER. ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing the Moody's publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY SUCH RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody's Investors Service, Inc. for appraisal and rating services rendered by it fees ranging from \$1,500 to approximately \$2,500,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody's.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657 AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors. It would be reckless and inappropriate for retail investors to use MOODY'S credit ratings or publications when making an investment decision. If in doubt you should contact your financial or other professional adviser.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for appraisal and rating services rendered by it fees ranging from JPY200,000 to approximately JPY350,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454